

BASIC PROBABILITY PRACTICE

- (1.) If a die is rolled one time, find these probabilities.
- a. Of getting a 4.
 - b. Of getting an even number.
 - c. Of getting a number greater than 4.
 - d. Of getting a number less than 7.
 - e. Of getting a number greater than 0.
 - f. Of getting a number greater than 3 or an odd number.
 - g. Of getting a number greater than 3 and an odd number.
- (2.) If two dice are rolled at one time, find the probability of getting these results.
- a. A sum of 6.
 - b. Doubles.
 - c. A sum of 7 or 11.
 - d. A sum greater than 9.
 - e. A sum less than or equal to 4.
- (3.) If one card is drawn from a deck, find the probability of getting these results.
- a. An ace.
 - b. A diamond.
 - c. An ace of diamonds.
 - d. A 4 or 6.
 - e. A 4 or a club.
 - f. A 6 or a spade.
 - g. A heart or a club.
 - h. A red queen.
 - i. A red card or a 7.
 - j. A black card and a 10.

- (4.) A box contains five red, two white, and three green marbles. If a marble is selected at random, find these probabilities.
- a. That it is red.
 - b. That it is green.
 - c. That it is red or white.
 - d. That it is not green.
 - e. That it is not red.
- (5.) In an office there are five women and four men. If one person is selected, find the probability that the person is a woman.
- (6.) If there are 50 tickets sold for a raffle and one person buys 7 tickets, what is the probability of that person winning the prize?
- (7.) In an office there are seven women and nine men. If one person is promoted, find the probability that the person is a man.
- (8.) A survey found that 53% of Americans think US military forces should be used to "protect the interest of US corporations" in other countries. If an American is selected at random, find the probability that he or she will disagree or have no opinion on the issue.
- (9.) A certain brand of grass seed has an 86% probability of germination. If a lawn care specialist plants 9,000 seeds, find the number that should germinate.

- (10.) A couple plans to have three children. Find each probability.
- Of all boys.
 - Of all girls or all boys.
 - Of exactly two boys or two girls.
 - Of at least one child of each gender.
- (11.) In the game of craps using two dice, a person wins on the first roll if a 7 or an 11 is rolled. Find the probability of winning on the first roll.
- (12.) In a game of craps, a player loses on the roll if a 2, 3, or 12 is tossed on the first roll. Find the probability of losing on the first roll.
- (13.) When 350 students are interviewed, 186 stated that they preferred the lecture presentation to a group discussion. Find the probability that if a student were randomly selected, he or she would prefer the lecture presentation method.
- (14.) A roulette wheel has 38 spaces numbered 1 through 36, 0 and 00. Find the probability of getting these results.
- An odd number.
 - A number greater than 25.
 - A number less than 15 not counting 0 and 00.
- (15.) Thirty-nine of 50 states are currently under court order to alleviate overcrowding and poor conditions in one or all of their prisons. If a state is selected at random, find the probability that it is currently under such a court order.

Name _____ Date _____ Block _____

- (16.) A baseball player's average is 0.331. If he is at bat 53 times during the season, find the approximate number of times he gets to first base safely. Walks do not count.

- (17.) A record store receives order from the following age groups.

Age	Percentage
Under 20	30
20 - 29	13
30 - 39	20
40 - 49	27
50 and over	10

If a customer is selected at random, find the probability that he or she is in the following age groups. Use percentages.

- Between 30 and 39 years of age.
- Under 30 years of age.
- Over 29 and under 50 years of age.
- Under 20 or over 49 years of age.